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EXAMINER
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PHAM, CHRYSTINE

ART UNIT	PAPER NUMBER
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2192

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/692,765

Applicant(s)

EBBO ET AL.

Examiner

Chrystine Pham

Art Unit

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is responsive to Amendment filed on April 11, 2007. Claims 1-38 are presented for examination.

#### ***Response to Amendment***

2. In view of the amendment to claims 1, 21, 25, 28, 29 to overcome rejection under 35 USC 101 (non-statutory subject matter), the rejection of claims 1-18, 21-34 under 35 USC 101 is hereby withdrawn.

#### ***Response to Arguments***

3. Applicant's arguments filed April 11, 2007 have been fully considered but they are not persuasive.

First, Applicants contend, "Alaluf fails to teach associating a build provider with each file of the plurality of files" (Emphasis from original)(Remarks, page 11). Applicants similarly assert, "At no point is a plurality of build providers associated with a plurality of files" (Emphasis added)(Remarks, page 12). However, the Examiner respectfully disagrees. As clearly established in the previous Office Action (page 5), 310 of FIG.3 of Alaluf explicitly discloses the providing source code having different file types (i.e., VB, C++, J#) to the .NET Compiler 320. Moreover, paragraph [0033] of Alaluf explicitly discloses the .NET Compiler 320 consists of several compilers (i.e., build providers), each targeted to a different programming language (i.e., file type associated with the

source code file). Needless to say, contrary to Applicants' argument, Alaluf clearly anticipates "associating a build provider with each file of the plurality of files, wherein at least two files have different file types".

Applicants further contend, "Vasilik fails to teach a method that is adapted to indicate a language used by the code that is part of the file" (Emphasis from original)(Remarks, page 13). The Examiner respectfully disagrees. As clearly established in the previous Office Action (on page 12), col.2:54-67 of Vasilik explicitly discloses the build rules indicate how different types of target files (e.g., ".class" file) can be generated from different source file types (i.e., source files of different languages)(e.g., ".java" file). Needless to say, without the build rules indicating the language (i.e., type) of the source file, it would impossible to generate target file.

4. In view of the foregoing discussion, claim rejection under 35 USC 102(e) and 103(a) is considered proper and maintained.

#### ***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 35-36 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 35

Recited as "a computer readable medium", the claim does not limit said medium to a statutory manufacture. The Specification discloses said medium comprising "transmission media (e.g., page 23, lines 8-18). The "transmission media" are merely signal and/or energy. Furthermore, a claimed signal is clearly not a "process" under Sec. 101 because it is not a series of steps. The other three Sec. 101 classes of machine, compositions of matter and manufactures "relate to structural entities and can be grouped as 'product' claims in order to contrast them with process claims." 1 D. Chisum, Patents Sec. 1.02 (1994). The three product classes have traditionally required physical structure or material. See Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, Annex IV(c) <<http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>>

Claim 36 is rejected for failing to remedy the deficiency of base claim 35.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2192

8. Claims 1-18, 21-24 and 35-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Alaluf (US 2004/0230958 A1).

#### Claim 1

Alaluf teaches one or more processor-accessible storage media comprising processor-executable instructions that, when executed, direct a device to perform actions comprising:

- o accepting (i.e., receiving) a plurality of files (i.e., resources), each file of the plurality of files corresponding to a respective (i.e., different) file type and including source code, wherein at least two files have different file types (see at least 310 FIG.3 & associated text; paragraphs [0033]-[0034]);
- o associating a build provider with each file of the plurality of files in accordance with the corresponding respective file type (see at least 320 FIG.3 & associated text; paragraphs [0033]-[0034]);
- o ascertaining the source code of each file of the plurality of files via the associated build provider (see at least 310-320 FIG.3 & associated text; paragraphs [0033]-[0034]); and
- o compiling the ascertained source code of each file of the plurality of files into an assembly (see at least 330 FIG.3 & associated text; paragraphs [0033]-[0034]).

#### Claim 2

Art Unit: 2192

The rejection of base claim 1 is incorporated. Alaluf further teaches comprising the processor-executable instructions that, when executed, direct the device to perform a further action comprising: accessing a data structure that maps respective file types of a plurality of file types to respective build providers of a plurality of build providers (see at least 320 FIG.3 & associated text; paragraphs [0003]-[0004], [0033]).

#### Claim 3

The rejection of base claim 1 is incorporated. Alaluf further teaches comprising the processor-executable instructions that, when executed, direct the device to perform a further action comprising: instantiating the associated build provider for each file of the plurality of files (see at least paragraph [0033]).

#### Claim 4

The rejection of base claim 1 is incorporated. Alaluf further teaches wherein the action of compiling comprises an action of: launching a compiler that performs a compilation on the ascertained source code of each file of the plurality of files to create the assembly (see at least 330 FIG.3 & associated text).

#### Claim 5

The rejection of base claim 1 is incorporated. Alaluf further teaches wherein at least a portion of the processor-executable instructions comprise at least part of an operating system (see at least 320 FIG.3 & associated text).

Claim 6

The rejection of base claim 1 is incorporated. Alaluf further teaches wherein at least a portion of the processor-executable instructions comprise at least part of a program that is capable of establishing a runtime environment (see at least paragraph [0035]; 320 FIG.3 & associated text).

Claim 7

The rejection of base claim 1 is incorporated. Alaluf further teaches wherein the one or more processor-accessible media comprise at least one of one or more storage media and (see at least 320 FIG.3 & associated text).

Claim 8

Alaluf teaches one or more processor-accessible media comprising processor-executable instructions that, when executed, direct a device to perform actions comprising:

- o creating an associated build provider for each associated file of a plurality of files, wherein at least two files have different file types (see at least paragraph [0033]);
- o giving each associated build provider a path to its associated file (see at least 320 FIG.3 & associated text; paragraphs [0003]-[0004], [0033]);
- o requesting each associated build provider to contribute code of its associated file (see at least 310-330 FIG.3 & associated text); and



- o compiling the contributed code of each associated file into an assembly (see at least 310-330 Fig.3 & associated text).

#### Claims 9-10

Claims recite limitations, which have been addressed in claims 1 and 3, therefore, are rejected for the same reasons cited in claims 1 and 3.

#### Claim 11

The rejection of base claim 8 is incorporated. Alaluf further teaches comprising the processor-executable instructions that, when executed, direct the device to perform a further action comprising: asking each associated build provider for its usable code language (see at least paragraph [0033]).

#### Claims 12-13

Claims recite limitations, which have been addressed in claim 1, therefore, are rejected for the same reasons cited in claim 1.

#### Claim 14

The rejection of base claim 8 is incorporated. Alaluf further teaches wherein the action of compiling further comprises an action of: constructing at least one of an object code file, an executable file, a dynamically linked library (DLL) file, and an intermediate language (IL) file (see at least 330 FIG.3 & associated text).

Claim 15

The rejection of base claim 8 is incorporated. Alaluf further teaches wherein the action of giving further comprises an action of: calling a file path interface on each associated build provider (see at least 310-320 FIG.3 & associated text).

Claim 16

The rejection of base claim 8 is incorporated. Alaluf further teaches wherein the action of requesting further comprises an action of: calling a generate code interface on each associated build provider (see at least 320-330 FIG.3 & associated text).

Claim 17

The rejection of base claim 8 is incorporated. Alaluf further teaches comprising the processor-executable instructions that, when executed, direct the device to perform a further action comprising: acquiring the contributed code of each associated file via each associated build provider responsive to the action of requesting (see at least 320-330 FIG.3 & associated text).

Claim 18

Claim recites limitations, which have been addressed in claims 1, 8 and 15, therefore, is rejected for the same reasons cited in claims 1, 8 and 15.

#### Claims 21-23

Claims recite limitations, which have been addressed in claims 1, 8 and 14, therefore, are rejected for the same reasons cited in claims 1, 8 and 14.

#### Claim 24

The rejection of base claim 23 is incorporated. Alaluf further teaches wherein the build provider is configured to contribute code for compilations (i) by writing to a code file object, (ii) by writing to a stipulated file path location, and/or (iii) by generating a code compile unit that presents code as a language-independent structure (see at least 330 FIG.3 & associated text).

#### Claim 35

Alaluf teaches a computer readable medium encoding an arrangement for software build extensibility, comprising:

- o association means for associating a build provider with each respective file of a plurality of files in accordance with a respective file type that corresponds to the respective file (see at least 310, 320 FIG.3 & associated text);
- o ascertainment means for ascertaining code of each respective file of the plurality of files via the associated build provider; and (see at least 320 FIG.3 & associated text)

- o compilation means for compiling the ascertained code of each respective file of the plurality of files into an assembly (see at least 330 FIG.3 & associated text).

Claim 36

The rejection of base claim 35 is incorporated. Alaluf further teaches contribution means for contributing the code of each respective file of the plurality of files to the ascertainment means as at least one of a code object, a file path location, and a code compile unit (see at least 310-330 FIG.3 & associated text).

Claim 37

The rejection of base claim 35 is incorporated. Alaluf further teaches wherein the arrangement comprises at least one device (see at least FIG.3 & associated text).

Claim 38

The rejection of base claim 35 is incorporated. Alaluf further teaches wherein the arrangement comprises one or more processor-accessible storage media (see at least FIG.3 & associated text).

9. Claims 28-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Vasilik et al. (US 6,922,827 B2, "Vasilik")

Claim 28

Vasilik teaches one or more processor-accessible media comprising processor-executable instructions that expose an application programming interface (API), the application programming interface including:

- o a first property that is adapted to accept a path that identifies a file to which the processor-executable instructions is to be associated (see at least 202 FIG.2 & associated text; col.4:58-col.5:16);
- o a second method that is adapted to indicate a language used by code that is part of the file (see at least col.4:58-col.5:16); and
- o a third method that is adapted to precipitate (i) generation of the code from the file and (ii) contribution of the generated code to a compilation (see at least 208 FIG.2 & associated text; 302-304 FIG.3 & associated text; col.5:17-40).

#### Claim 29

Claim recites limitations, which have been addressed in claim 28, therefore, is rejected for the same reasons cited in claim 28.

#### Claim 30

The rejection of base claim 29 is incorporated. Vasilik further teaches indicating a usable code language, the usable code language comprising the language of the particular code (see at least *build rules, source file types, target files* col.2:54-67).

#### Claim 31

The rejection of base claim 29 is incorporated. Vasilik further teaches generating the particular code from the particular file (see at least *build rules, source file types, target files* col.2:54-67).

#### Claim 32

The rejection of base claim 29 is incorporated. Vasilik further teaches submitting one or more resources for inclusion in the compilation (see at least *build rules, source file types, target files* col.2:54-67).

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 19, 25-27 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alaluf in view of Vasilik et al. (US 6,922,827 B2, "Vasilik").

#### Claim 19

Alaluf teaches a device comprising:

- o at least one processor (see at least FIG.3 & associated text); and one or more media including a data structure that is capable of being accessed by the at least

one processor (see at least paragraph [0033]). Alaluf further teaches first, second and third build providers for handling first, second and third file types during compilation (see at least paragraph [0033]). Alaluf does not expressly disclose the data structure comprising: a first entry that includes a first file type and a denotation of a first build provider, a second entry that includes a second file type and a denotation of a second build provider, and a third entry that includes a third file type and a denotation of a third build provider, wherein the first entry maps the first file type to the first build provider, the second entry maps the second file type to the second build provider, and the third entry maps the third file type to the third build provider. However, Vasilik teaches disclose the data structure (see at least *rule set 105* FIG.1 & associated text) comprising: a first entry that includes a first file type and a denotation of a first build provider, a second entry that includes a second file type and a denotation of a second build provider, and a third entry that includes a third file type and a denotation of a third build provider, wherein the first entry maps the first file type to the first build provider, the second entry maps the second file type to the second build provider, and the third entry maps the third file type to the third build provider (see at least *build rules, source file types, target files* col.2:54-col.3:13). Alaluf and Vasilik are analogous art because they are directed to source code compilation. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Vasilik into that of Alaluf for the inclusion of the data structure mapping different source file types to different

Art Unit: 2192

build providers. And the motivation for doing so would have been to facilitate automatic rebuilding (i.e., recompilation) of the assembly without user intervention (see at least Vasilik col.1:45-55).

Claim 25

Claim recites limitations, which have been addressed in claims 19 and 21, therefore, is rejected for the same reasons cited in claims 19 and 21.

Claims 26-27

Claims recite limitations, which have been addressed in claims 1, 2 and 19, therefore, are rejected for the same reasons cited in claims 1, 2 and 19.

Claim 34

Claims recite limitations, which have been addressed in claim 18, therefore, are rejected for the same reasons cited in claim 18.

Claims 20 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alaluf in view of Vasilik further in view of Petersen et al. (US 2003/0066056 A1, "Petersen").

Claim 20



The rejection of base claim 19 is incorporated. Alaluf and Vasilik do not expressly disclose wherein the first build provider is capable of generating source code from files of the first type, the second build provider is capable of generating source code from files of the second type, and the third build provider is capable of generating source code from files of the third type. However, Petersen teaches wherein the first build provider is capable of generating source code from files of the first type, the second build provider is capable of generating source code from files of the second type, and the third build provider is capable of generating source code from files of the third type (see at least FIG.2 & associated text; paragraphs [0026], [0028]). Alaluf and Petersen are analogous art because they are directed to source code compilation. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Petersen into that of Alaluf for the inclusion of generating (i.e., compiling or translating) second source code from first source code. And the motivation for doing so would have been to generate [source] code for providing private copies of global storage objects (of the first source code) to multiple threads during execution of the translated second source code (see at least Petersen Abstract).

### Claim 33

The rejection of base claim 29 is incorporated. Claim recites limitations, which have been addressed in claim 20, therefore, is rejected for the same reasons cited in claim 20.

***Conclusion***

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chrystine Pham whose telephone number is 571-272-3702. The examiner can normally be reached on Mon-Fri, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on 571-272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2192

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Tuan Dam', with a stylized, flowing script.

**TUAN DAM**  
**SUPERVISORY PATENT EXAMINER**